

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. - 10. (Cancelled).

11. (New) A method of preparing a cross-linked hydrogel by graft polymerization, comprising the steps of:

(1) preparing an aqueous solution having at least one saturated hydrophilic polymer, a cross-linking agent, and a photoinitiator having a water soluble peroxydisulphate; and

(2) subjecting the aqueous solution to irradiation;  
wherein the cross-linking agent acts as a co-catalyst for a cross-linking reaction.

12. (New) The method of claim 11, wherein the aqueous solution comprises at least two saturated hydrophilic polymers.

13. (New) The method of claim 11, wherein the peroxydisulphate is selected from the group consisting of sodium peroxydisulphate, potassium peroxydisulphate, and ammonium peroxydisulphate.

14. (New) The method of claim 11, wherein the aqueous solution further comprises at least one co-initiator selected from the group consisting of multivalent transition metal ions.

15. (New) The method of claim 11, wherein the hydrophilic polymer is selected from the group consisting of cellulose derivatives, polysaccharides, polyvinyl pyrrolidone, polyvinyl alcohol, polyacrylic acid, poly(methyl vinyl ether/maleic anhydride), poly(meth)acrylic acid, polyethylene glycol, or copolymers or blends of the foregoing.

16. (New) The method of claim 11, wherein the hydrophilic polymer comprises poly-vinyl pyrrolidone or copolymers of polyvinyl pyrrolidone.

17. (New) The method of claim 11, wherein the cross-linking agent is selected from the group consisting of vinylic or unsaturated macromers or monomers.

18. (New) The method of claim 17, wherein the cross-linking agent is selected from the group consisting of mono-/di- or multifunctional acrylates or methacrylates.

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19. (New) The method of claim 11, wherein the aqueous solution further comprises one or more plasticizers.

20. (New) The method of claim 11, wherein the cross-linked hydrogel is in the form of a sheet.

21. (New) A composition for the preparation of a cross-linked hydrogel by photopolymerization, the composition comprising at least one saturated hydrophilic polymer, a cross-linking agent, and a photoinitiator having a water soluble peroxydisulphate.

22. (New) The composition according to claim 21, wherein the composition comprises at least two saturated hydrophilic polymers.

23. (New) A cross-linked hydrogel prepared by the method according to claim 11.